

Amendments to the Claims

1. (Currently Amended) A method performed by a target computer of automatically processing digital images, the method comprising:

passing a request to acquire a digital image file from an automatic image analysis and adjustment service in the target computer to an external interface coupled to an image capture device, wherein the image capture device is selected from the group consisting of: a digital camera, a scanner, and a digital video camera;

transferring a first digital image file containing a digital image from a first digital image data source device to a acquiring the digital image file from the image capture device to the target computer that is separate from and connected to the image capture device by a connection selected from the group consisting of a wired connection and a wireless connection, the target computer having an application programming interface that facilitates transfer of digital image files from digital image data source devices to the target computer, the application programming interface comprising a member function configured to retrieve the digital image file from the image capture device;

at the target computer that is separate from and connected to the image capture device, analyzing image data from the ~~first~~ digital image file; and

at the target computer that is separate from and connected to the image capture device, adjusting the image data from the ~~first~~ digital image file based at least in part on the analysis of the image data ~~;~~ ;

wherein the analyzing and the adjusting are performed automatically at the target computer that is separate from and connected to the image capture device, and wherein the analyzing and the adjusting are initiated by the ~~transferring~~ acquiring of the ~~first~~ digital image file from the ~~first digital image data source~~ image capture device to the target computer without further input from the user; and

wherein the image capture device comprises an image capture device housing, and
wherein the target computer comprises a computer housing that is separate from the
image capture device housing.

2. (Canceled)

3. (Previously Presented) The method of claim 1 wherein the transferring is initiated at a source location for the digital image.

4. (Previously Presented) The method of claim 1 wherein the transferring is initiated at a target location for the digital image.

5. (Currently Amended) The method of claim 1 wherein the transferring is performed via ~~a~~ wireless communication ~~medium~~.

6. (Previously Presented) The method of claim 1 wherein the transferring is performed via a network connection.

7. (Currently Amended) The method of claim 1 further comprising analyzing non-image information from the ~~first~~ digital image file;
wherein the adjusting is based at least in part on the analysis of the non-image information.

8. (Original) The method of claim 7 wherein the non-image information comprises one or more of the following: flash information, focal length, shutter speed, camera model information, aperture setting, date/time information.

9. (Original) The method of claim 1 wherein the image data comprises pixel data for the image.
10. (Original) The method of claim 1 further comprising generating image characteristic data prior to adjusting the image data;
wherein the adjusting is based at least in part on the image characteristic data.
11. (Original) The method of claim 10 wherein the image characteristic data comprises image orientation data, and wherein the adjusting comprises adjusting orientation of the image based on the image orientation data.
12. (Original) The method of claim 10 wherein the image characteristic data comprises one or more of the following: image orientation data, red-eye detection data, blur data, color balance data, exposure data, noise data.
13. **(Currently Amended)** The method of claim 1 further comprising:
generating metadata corresponding to the adjusting; and
storing the metadata corresponding to the adjusting in the **first** digital image file;
wherein the storing facilitates preservation of an original version of the digital image.
14. **(Currently Amended)** The method of claim 13 wherein the transferring is performed in response to a request from a user-mode application, and further comprising:
providing the **first** digital image file with the metadata to the user-mode application.
15. (Original) The method of claim 1 wherein automatic performance of the analyzing and the adjusting is selectively enabled or disabled by a user.

16. **(Currently Amended)** The method of claim 1 wherein the ~~first~~ digital image file is a compressed digital image file.

17. (Canceled)

18. (Previously Presented) The method of claim 1 wherein the digital image file is in an EXIF format.

19. (Canceled)

20. (Original) The method of claim 1 wherein the acts are performed in an operating system environment as a feature of the operating system environment.

21. (Original) The method of claim 20 wherein the operating system environment is a managed code environment.

22. (Previously Presented) The method of claim 1 wherein the analyzing and the adjusting are performed in a background service of an operating system environment.

23. (Previously Presented) The method of claim 1 further comprising:
storing the adjusted image data on a computer-readable medium at the target computer.

24. (Canceled)

25. **(Currently Amended)** A method performed by a target computer of automatically processing digital images the method comprising:
passing a request to acquire a first digital image file from an automatic image analysis and adjustment service in the target computer to an external interface coupled to

an image capture device, wherein the image capture device is selected from the group consisting of: a digital camera, a scanner, and a digital video camera, and wherein the target computer is separate from and connected to the image capture device by a connection selected from the group consisting of a wired connection and a wireless connection;

responsive to the request, acquiring a first digital image file from the image capture device to the target computer that is separate from and connected to the image capture device;

responsive to ~~a transfer~~ the acquisition of a the first digital image file from ~~a first digital image data source~~ the image capture device to a the target computer which is separate from and connected to the image capture device, analyzing image data from the first digital image file at the target computer;

initiated by the ~~transfer~~ acquisition of the first digital image file from the ~~first digital image data source~~ image capture device to the target computer which is separate from and connected to the image capture device, and prior to receiving any user input relating to the analyzing, adjusting the image data from the first digital image file at the target computer based at least in part on the analysis of the image data; and

generating metadata corresponding to the adjusting;

wherein the target computer has an application programming interface that allows transfer of digital image files from multiple different types of digital image data source devices to the target computer, the application programming interface comprising a member function configured to retrieve the first digital image file from the first digital image data source device; and

wherein the image capture device comprises an image capture device housing, and wherein the target computer comprises a computer housing that is separate from the image capture device housing.

26. (Previously Presented) The method of claim 25 further comprising:
storing the metadata corresponding to the adjusting in the first digital image file;
wherein the storing facilitates reversal of the adjusting.

27. (Previously Presented) The method of claim 25 further comprising:
storing the metadata corresponding to the adjusting in a second image file;
wherein the second image file comprises a second version of the first digital image file.

28. (Currently Amended) A computer system comprising:

a an external communication connection device at a target computer selected from the group consisting of a wired communication connection device and a wireless communication connection device;

an image acquisition application programming interface at the target computer for acquiring one or more digital image files containing one or more digital images from a digital image ~~source~~ **capture device coupled to the external communication connection device, wherein the digital image capture device is separate from and connected to the target computer, and is selected from the group consisting of: a digital camera, a scanner, and a digital video camera**;

a memory at the target computer for storing the one or more acquired digital image data files containing the one or more acquired digital images;

an image analysis software module at the target computer for analyzing the one or more acquired digital images at image acquisition time;

an image adjustment software module at the target computer for adjusting the one or more acquired digital images at image acquisition time, wherein the adjusting is based at least in part on the analyzing, wherein the analyzing and the adjusting are initiated by the acquiring of the one or more digital image files containing one or more digital images from the digital image ~~source~~ **capture device which is separate from and connected to the target computer** and occur prior to further user input; and

at least one processor at the target computer;

wherein the image analysis software module and the image adjustment software module are in an image acquisition service of an operating system of the target computer, and wherein the one or more digital image files are acquired by passing a request to acquire the one or more digital image files from the image acquisition service of the operating system of the target computer to the external communication connection device; and

wherein the digital image capture device comprises a digital image capture device housing, and wherein the target computer comprises a computer housing that is separate from the digital image capture device housing.

29. (Original) The computer system of claim 28 further comprising an image output device for visually displaying digital images.

30. (Canceled)

31. (Original) The computer system of claim 28 further comprising:
an image decoder for decoding compressed digital image data; and
an image encoder for encoding adjusted digital image data.

32. (Previously Presented) The computer system of claim 28 wherein the image adjustment software module comprises one or more processing filters for adjusting the one or more acquired digital images.

33. (Previously Presented) The computer system of claim 28 wherein the image adjustment software module comprises an extensible software architecture operable to allow customization of the image adjustment software module, wherein the extensible software architecture comprises one or more processing filters for adjusting the one or more acquired

digital images, wherein each of the one or more processing filters encapsulates an image adjustment function.

34. (Original) The computer image acquisition system of claim 33 wherein the customization comprises adding, removing or reordering processing filters in the image adjustment software module.

35. (Previously Presented) The computer image acquisition system of claim 28 wherein the image adjustment software module generates metadata corresponding to adjustments of the one or more acquired digital images, and further comprising:

a metadata/image integrator for integrating the metadata into a digital image file containing adjusted digital image data.

36. (Currently Amended) ~~A~~ One or more computer-readable storage media having stored thereon a software system for automatically processing digital images in a target computer, the software system comprising:

at ~~a~~ the target computer:

means for passing a request to acquire an image data file from an automatic image analysis and adjustment service in the target computer to an external interface coupled to an image capture device which is separate from and connected to the target computer, wherein the image capture device is selected from the group consisting of: a digital camera, a scanner, and a digital video camera;

means for receiving, responsive to the request, a digital image file comprising a digital image from a digital image source the image capture device that is separate from and connected to the target computer via a connection selected from the group consisting of a wired connection and a wireless connection, the receiving facilitated by an application programming interface that facilitates transfer of digital image files from digital image capture devices to the target computer, the application programming interface

comprising a member function configured to retrieve the digital image file from the image capture device;

means for analyzing digital image data in the received digital image file, wherein the means for analyzing automatically analyzes the digital image data responsive to the received digital image file and without further user input; and

means for adjusting the digital image based on the automatic analysis of the digital image data, wherein the means for adjusting automatically adjusts the digital image data responsive to the automatic analysis without further user input;

wherein the image capture device comprises an image capture device housing, and wherein the target computer comprises a computer housing that is separate from the image capture device housing.

37. (Previously Presented) The software system of claim 36 wherein transfer of the digital image file from the ~~digital image source~~ **image capture** device to the target computer is initiated by device event data originating at the ~~digital image source~~ **image capture** device.

38. (Previously Presented) The software system of claim 36 wherein transfer of the digital image file from the ~~digital image source~~ **image capture** device to the target computer is initiated by a request originating at the target computer.

39. (Currently Amended) The software system of claim 36 wherein the digital image file is received via ~~a~~ wireless communication ~~medium~~.

40. (Currently Amended) The software system of claim 36 wherein the ~~digital image file~~ **wired connection** is ~~received via~~ a network connection.

41. (Previously Presented) The software system of claim 36 wherein the means for analyzing further comprises means for analyzing non-image information from the received digital image file.

42. (Original) The software system of claim 41 wherein the non-image information comprises one or more of the following: flash information, focal length, shutter speed, camera model information, aperture setting, date/time information.

43. (Original) The software system of claim 36 wherein the image data comprises pixel data for the image.

44. (Original) The software system of claim 36 further comprising means for generating image characteristic data prior to adjusting the image data.

45. (Original) The software system of claim 44 wherein the image characteristic data comprises one or more of the following: image orientation data, red-eye detection data, blur data, color balance data, exposure data, noise data.

46. (Original) The software system of claim 36 further comprising:
means for generating metadata corresponding to image adjustments; and
means for storing the metadata corresponding to image adjustments in a digital image file containing an adjusted version of the digital image;
wherein the means for storing facilitates preservation of an original version of the digital image.

47. (Original) The software system of claim 36 further comprising means for selectively enabling or disabling the means for adjusting.

48. (Original) The software system of claim 36 wherein the software system is implemented as a feature of an operating system environment.

49. (Original) The software system of claim 48 wherein the operating system environment is a managed code environment.

50. (Canceled)

51. (Canceled)

52. (Currently Amended) A ~~One or more computer-readable storage media~~ having stored thereon a software system providing automatic digital image processing functionality at a target computer, the software system comprising:

a customizable software architecture for adjusting digital image data at a target computer based on analysis performed at the target computer, wherein the adjusting and the analysis of the digital image data is responsive, without further user input, to acquisition of one or more files containing digital images by the target computer from ~~a digital~~ an image capture sourcee device which is separate from and connected to the target computer by a connection selected from the group consisting of a wired connection and a wireless connection, wherein the customizable software architecture is capable of operably coupling one or more image adjustment modules encapsulating image adjustment functions to one or more image analysis modules;

wherein the functionality of the software system is capable of being customized by altering an arrangement of image adjustment modules operably coupled to the one or more image analysis modules;

wherein the acquisition is responsive to passing a request to acquire an image data file from the customizable software architecture for adjusting digital image data in the target computer to an external interface coupled to the image capture device, wherein the

image capture device is selected from the group consisting of: a digital camera, a scanner, and a digital video camera;

wherein the target computer has an application programming interface that facilitates transfer of digital image files from the image capture device to the target computer, the application programming interface comprising a member function configured to retrieve a digital image file from the image capture device; and

wherein the image capture device comprises an image capture device housing, and wherein the target computer comprises a computer housing that is separate from the image capture device housing.

53. (Original) The software system of claim 52 wherein the altering comprises adding image adjustment modules encapsulating image adjustment functions to the software system.

54. (Original) The software system of claim 52 wherein the altering comprises changing the functional order of image adjustment modules operably coupled to one another in the software system.

55. (Currently Amended) A computer-readable storage medium having computer-executable code for the software system of claim 52.

56. (Canceled)

57. (Canceled)

58. (Canceled)

59. (New) A computer-readable storage medium having instructions encoded thereon which, when executed on a target computer, cause the target computer to perform a method of automatically processing digital images, the method comprising:

passing a request to acquire a digital image file from an automatic image analysis and adjustment service in the target computer to an external interface coupled to an image capture device, wherein the image capture device is selected from the group consisting of: a digital camera, a scanner, and a digital video camera;

acquiring the digital image file from the image capture device to the target computer that is separate from and connected to the image capture device by a connection selected from the group consisting of a wired connection and a wireless connection, the target computer having an application programming interface that facilitates transfer of digital image files from digital image data source devices to the target computer, the application programming interface comprising a member function configured to retrieve the digital image file from the image capture device;

at the target computer that is separate from and connected to the image capture device, analyzing image data from the digital image file; and

at the target computer that is separate from and connected to the image capture device, adjusting the image data from the digital image file based at least in part on the analysis of the image data;

wherein the analyzing and the adjusting are performed automatically at the target computer that is separate from and connected to the image capture device, and wherein the analyzing and the adjusting are initiated by the acquiring of the digital image file from the image capture device to the target computer without further input from the user; and

wherein the image capture device comprises an image capture device housing, and wherein the target computer comprises a computer housing that is separate from the image capture device housing.